28 October 1966

MEMORANDUM FOR: Director of National Estimates

ATTENTION : [redacted] 25X1A

SUBJECT : Submission of Tables by the NIPP Ad Hoc Naval Working Group for Section I of NIPP-67

1. Submitted herewith are NIPP Tables IC 1 through IC 5. It should be noted in these tables that the previous, arbitrary division of submarines into first and second line categories has been dropped. All submarines now are carried in an operational status. Submarines will be dropped from the operational category by transfer or by retirement, using other factors in addition to the factor of age.

2. Your attention is called to the NSA reservation which reads as follows:

25X1A

"The NSA representative agrees generally with the growth and change figures represented in this table but reserves on two points: (1) NSA disagrees with the 1962-1966 baseline figures preferring instead the baseline figures in the NSA footnote to MIE 11-8-66; and (2) NSA believes the growth rate of the Echo II class is and will continue to be 6 per year through at least 1968. This reservation applies to Tables IC 1 through IC 3."

[redacted]

25X1A

[redacted]

Chairman,
Naval Working Group

Enclosure:
As Stated

Distribution:
Orig. & 4-Addressee (ONE)
1-D/F
1-D/P
1-MRA
1-ONI
1-DIA
1-NSA
2-F/NS

25X1A

ORR/F/NS:LHP/EMR: [redacted] (28 October 1966)

NIPP-67
TABLE 1C 1

SOVIET BALLISTIC AND CRUISE MISSILE SUBMARINE FORCES
OPERATIONAL SUBMARINES BY CLASS AT MID-YEAR 1/

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Ballistic Missile Submarines															
Nuclear (SSBN)															
H-I Class 2/	6-8	8-10	7-9	6-7	5-5	4-3	3-1	2-0	0	0	0	0	0	0	0
H-II Class 3/	0	0	1	2-3	3-5	4-7	5-9	6-10	8-10	8-10	8-10	8-10	8-10	8-10	8-10
New Class	0	0	0	0	0	0	1	2-4	5-8	8-12	11-16	14-20	17-25	21-30	25-35
Total SSBN	6-8	8-10	8-10	8-10	8-10	8-10	9-11	10-14	13-18	16-22	19-26	22-30	25-35	29-40	33-45
Diesel (SSB)															
Z-Conversion 2/	7	7	7	7	7	7	7	7	7	7	6	4	2	1	0
G-I Class 2/	23-25	27-30	27-30	27-30	27-30	27-30	27-30	27-29	27-28	27-26	27-24	27-21	27-16	27-16	27-16
G-II Class 3/	1	1	1	1	1	1	1	1-2	1-3	1-5	1-7	1-10	1-15	1-15	1-15
Total SSB	31-33	35-38	35-38	35-38	35-38	35-38	35-38	35-38	35-38	35-38	34-37	32-35	30-33	29-32	28-31
Total SSBN and SSB	37-41	43-48	43-48	43-48	43-48	43-48	44-49	45-52	48-56	51-60	53-63	54-65	55-68	58-72	61-76
Cruise Missile Submarines 4/															
Nuclear (SSGN)															
E-I Class	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
E-II Class	0	2-3	5-7	11-13	16-18	20-22	24-26	27-29	30-32	33-35	33-37	33-39	33-40	33-41	33-42
Total SSGN	4	7-8	10-12	16-18	21-23	25-27	29-31	32-34	35-37	38-40	38-42	38-44	38-45	38-46	38-47
Diesel (SSG)															
W-Conversion	10	12	13	13	13	13	13	13	12	10	8	6	5-4	5-2	5-0
J-Class	0	0	5-6	7-9	9-12	11-15	13-18	13-18	13-18	13-18	13-18	13-18	13-18	13-18	13-18
Total SSG	10	12	18-19	20-22	22-25	24-28	26-31	26-31	25-30	23-28	21-26	19-24	18-22	18-20	18-18
Total SSGN and SSG	14	19-20	28-31	36-40	43-48	49-55	55-62	58-65	60-67	61-68	59-68	57-68	56-67	56-66	56-[illegible]
Grand Total Missile Subs	51-55	62-68	71-79	79-88	86-96	92-103	99-111	103-117	108-123	112-128	112-131	111-133	111-135	114-138	117-141

1/ The previous distinction between first and second line submarines has been dropped. This table shows the total number of submarines by class which are estimated to be operational in any given year.

2/ Equipped with SS-N-4 350 n.m. surface-launched ballistic missile.

3/ Retrofitted SS-N-4 unit now equipped with SS-N-5 700 n.m. submerged launched ballistic missile. We consider that this retrofit may allow for the accommodation in the future of an improved missile.

4/ Equipped with the SS-N-3 surface-launched cruise missile. For characteristics see Table 1C 7.

5/ The NSA representative agrees generally with the growth and change figures represented in this table but reserves [illegible] (1) NSA disagrees with the 1966 baseline figures preferring instead the baseline figures in the NSA footnote to NIE 11-8-66, and (2) NSA believes the growth rate of the ECHO II class is and will continue to be 6 per year through at least 1968.

NIPP-67
TABLE 1C 2

SOVIET NUCLEAR-POWERED SUBMARINE
TOTAL NUMBERS OPERATIONAL BY CLASS AT MID-YEAR

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Nuclear Powered Submarines 1/															
Ballistic Missile (SSBN)															
H-Class	6-8	8-10	8-10	8-10	8-10	8-10	8-10	8-10	8-10	8-10	8-10	8-10	8-10	8-10	8-10
New Class	0	0	0	0	0	0	1	2-4	5-8	8-12	11-16	14-20	17-25	21-30	25-35
Total SSBN	6-8	8-10	8-10	8-10	8-10	8-10	9-11	10-14	13-18	16-22	19-26	22-30	25-35	29-40	33-45
Cruise Missile (SSGN)															
E-Class	4	7-8	10-12	16-18	21-23	25-27	29-31	32-34	35-37	38-40	38-42	38-44	38-45	38-46	38-47
Torpedo-Attack (SSGN)															
N-Class	6-8	9-11	12-14	14-17	16-20	16-20	16-20	16-20	16-20	16-20	16-20	16-20	16-20	16-20	16-20
New Attack Class	0	0	0	0	0	0-1	1-3	2-5	4-8	6-11	8-15	11-20	14-25	17-30	20-35
Total SSN	6-8	9-11	12-14	14-17	16-20	16-21	17-23	18-25	20-28	22-31	24-35	27-40	30-45	33-50	36-55
Total Nuclear-Powered	16-20	24-29	30-36	38-45	45-53	49-58	55-65	60-73	68-83	76-93	81-103	87-114	93-125	100-136	107-147
Construction Rate	8-9	6-7	8-9	7-8	4-5	5-7	5-8	8-10	8-10	5-10	6-11	6-11	7-11	7-11	
Diesel Powered 2/															
Ballistic Missile (SSB)	31-33	35-38	35-38	35-38	35-38	35-38	35-38	35-38	35-38	35-38	34-37	32-35	30-33	29-32	28-31
Cruise Missile (SSG)	10	12	18-19	20-22	22-25	24-28	26-31	26-31	25-30	23-28	21-26	19-24	18-22	18-20	18-18
Torpedo Attack	314	324	306	309	283	274-276	273-277	272-278	265-273	255-265	240-250	230-240	220-230	205-215	190-200
Total Diesel-Powered	355-357	371-374	359-363	364-369	340-346	333-342	334-346	333-347	325-341	313-331	295-313	281-299	268-285	252-267	236-249
Grand Total	371-377	395-403	389-399	402-414	385-399	382-400	389-411	393-420	393-424	389-424	376-416	368-413	361-410	352-403	343-396

1/ All types of nuclear-powered submarines are listed here for information in order to show the cumulative production of nuclear-powered submarines and the allocation of this production among types. The torpedo-attack submarines are not part of the strategic attack forces. Cruise missile submarines have the capability for strategic attack.

2/ All types of diesel-powered submarines are listed here for information in order to show the total size of the submarine force. The same comments on types apply as in Footnote 1.

~~For the NSA observation to the figures in this table see Footnote 5, Table 1.~~

NIPP-67
TABLE I

SOVIET BALLISTIC AND CRUISE MISSILE SUBMARINE FORCES
OPERATIONAL SUBMARINES BY FLEET AREA AT MID YEAR, 1967, 1972, 1976

	1967				1972				1976			
	Northern Fleet 1/	Baltic Fleet	Black Fleet	Pacific Fleet 2/	Northern Fleet 1/	Baltic Fleet	Black Fleet	Pacific Fleet 2/	Northern Fleet 1/	Baltic Fleet	Black Fleet	Pacific Fleet 2/
Ballistic Missile Submarines 3/												
Nuclear (SSB)												
H-I Class 4/	3-2	0	0	1	0	0	0	0	0	0	0	0
H-II Class 5/	3-6	0	0	1	5-7	0	0	3	5-7	0	0	3
New Class 6/	0	0	0	0	8-11	0	0	3-5	17-24	0	0	8-11
Sub Total	6-8	0	0	2	13-18	0	0	6-8	22-31	0	0	11-14
Diesel (SSB)												
Z-Conversion 4/	4	0	0	3	4	0	0	2	0	0	0	0
G-I Class 4/	20-23	0	0	7	20-19	0	0	7-5	18-12	0	0	9-4
G-II 5/	1	0	0	0	1-5	0	0	0-2	1-10	0	0	0-5
Sub Total	25-28	0	0	10	25-28	0	0	9	19-22	0	0	9-9
Total Ballistic Missile Subs	31-36	0	0	12	38-46	0	0	15-17	41-53	0	0	20-23
Cruise Missile Submarines 3/ 7/ 8/												
Nuclear												
E-I Class	0	0	0	5	0	0	0	5	0	0	0	5
E-II Class	11-13	0	0	9	21-24	0	0	12-13	21-27	0	0	12-15
Sub Total	11-13	0	0	14	21-24	0	0	17-18	21-27	0	0	17-20
Diesel (SSG)												
W-Conversion 9/	6	3	1	3	3	2	1	2	2-0	1-0	0	2-0
J-Class	9-13	0	0	2	10-14	0	0	3-4	10-14	0	0	3-4
Sub Total	15-19	3	1	5	13-17	2	1	5-6	12-14	1-0	0	5-4
Total Cruise Missile Subs	26-32	3	1	19	34-41	2	1	22-24	33-41	1-0	0	22-24
Grand Total Missile Subs	57-68	3	1	31	72-87	2	1	37-41	74-94	1-0	0	42-47

SOVIET BALLISTIC AND CRUISE MISSILE SUBMARINE FORCES
OPERATIONAL SUBMARINES BY FLEET AREA AT MID YEAR, 1967, 1972, 1976

FOOTNOTES

1/ Distances from Kola Inlet, a Northern Fleet base: (in n.m.)

Iceland	1,500	Halifax	3,400
Iceland-UK gap	1,300	Bermuda or New York	3,800
Gibralter	3,000	Norfolk	4,100
		Panama	5,400

2/ Distances from Pacific Fleet bases: (in n.m.)

From	To	Petropavlovsk	Vladivostok
Manila		3,100	1,900
Singapore		4,200	3,000
Honolulu		2,800	3,800
Seattle		3,000	4,300
San Francisco		3,300	4,600
Los Angeles		3,600	4,900
Panama		6,500	7,800

3/ At present the Soviets have not established any continuous patrol pattern off the coast of the continental US. If they decide to establish a routine pattern of continuous patrolling by their missile-launching submarines off the coast of the continental US, the following maximum percentages of the nuclear and diesel-powered forces could be maintained continuously on patrol stations within missile-launching range of CONUS targets. W-Conversion classes are excluded because they are limited in range to operational factors summarized in Table IC 6.

	Percent of Forces
Pacific Fleet-Nuclear	30
Pacific Fleet-Diesel	20-25
Northern Fleet-Nuclear	30
Northern Fleet-Diesel	12-15

4/ Equipped with SS-N-4 350 n.m. surface launched ballistic missile.

5/ Retrofitted SS-N-4 unit now equipped with SS-N-5 700 n.m. submerged launched ballistic missile. We consider that this retrofit may allow for the accommodation in the future of an improved missile.

6/ Probably equipped to carry a new or improved missile in eight or more launch tubes.

7/ Soviet cruise missile submarines were designed primarily for use against ships. However, they can be used for attack against land targets. These same submarines are listed also under Section III, Soviet General Purpose Naval Forces. The manpower, cost, and nuclear weapons implications of these submarines are included only under General Purpose Forces.

8/ Equipped with the SS-N-3 surface-launched cruise missile. For characteristics see Table IC 7.

9/ The several types of W-Conversion submarines are located as follows:

Northern Fleet	Pacific Fleet	Baltic Fleet
W Single Cylinder - 1	W Twin Cylinder - 1	W Long Bin - 3
W Twin Cylinder - 3	W Long Bin - 2	
W Long Bin - 2		

Black Sea Fleet

W Twin Cylinder - 1

10/ For the NSA reservation to the figures in this table see Footnote 5, Table IC 1.

NIPP-67
TABLE IC 4

SOVIET BALLISTIC AND CRUISE MISSILE SUBMARINE FORCES
PERSONNEL AND GUIDED MISSILE INVENTORIES PER UNIT

Submarines	Crew	Direct Support	Total	SS-N-3 or Follow-on	SS-N-4	SS-N-5 or Follow-on	New Missile or Follow-on
Z-Conversion	80	55-105	135-185	--	2	--	--
G-I	85	60-110	145-195	--	3	--	--
G-II	85	60-110	145-195	--	--	3 1/	--
H-I	100	70-130	170-230	--	3	--	--
H-II	100	70-130	170-230	--	--	3	--
New Class	110	75-145	185-255	--	--	--	8 4/
W-Conversion	60	40-50	100-140	2 or 4 2/	--	--	--
J	80	55-105	135-185	4	--	--	--
E-I	100	70-130	170-230	6	--	--	--
E-II	100	70-130	170-230	8	--	--	--
Additional Missiles in Inventory 3/ (per operational launcher)	--	--	--	1.0	0.25	0.25	0.25

1/ One G-II class submarine was converted to carry two SS-N-5.

2/ See footnote following Table IC 6 for a description of the several W-Conversion types.

3/ We assume 0.25 missiles per operational launcher are aboard support ships or on shore as maintenance spares. In the case of the cruise missile force, we assume an additional 0.75 missiles per launcher to provide replenishment for succeeding missions.

4/ This class may have 8 or more tubes.

NIPP-67
TABLE IC 5

SOVIET SUBMARINE BALLISTIC MISSILES
TOTAL LAUNCHERS AND OPERATIONAL MISSILE INVENTORY BY SYSTEM AT MID-YEAR 1/
AS = Launchers and Missiles Aboard Submarines 2/
R = Operational Reserve (Maintenance Spares) 3/

SYSTEM	1962 AS	1962 R	1963 AS	1963 R	1964 AS	1964 R	1965 AS	1965 R	1966 AS	1966 R	1967 AS	1967 R	1968 AS	1968 R	1969 AS	1969 R
SS-N-4 4/																
Aboard SSBN	18-24		24-30		21-27		18-21		15-15		12-9		9-3		6-0	
Aboard SSB	83-89		95-104		95-104		95-104		95-104		95-104		95-104		95-101	
Total	101-113	28	119-134	34	116-131	33	113-125	31	110-119	30	107-113	28	104-107	27	101-101	25
SS-N-5 5/																
Aboard SSBN	0		0		3		6-9		9-15		12-21		15-27		18-30	
Aboard SSB	2		2		2		2		2		2		2		2-5	
Total	2	1	2	1	5	1	8-11	3	11-17	4	14-23	6	17-29	7	20-35	9
New 6/																
Aboard SSBN	0		0		0		0		0		0		8	2	16-32	8
Total Ballistic Missiles	103-115	29	121-136	35	121-136	34	121-136	34	121-136	34	121-136	34	129-144	36	137-168	42

1/ For cruise missile inventories, see Table IIID 14.

2/ The "aboard-submarine" inventory equals one submarine fill (one missile per tube) for each submarine shown in Table IC 2, with the number of tubes per ship as indicated in Table IC 6.

3/ This operational reserve is assumed to be for maintenance purposes only; no additional reserve for refire is assumed. The "operational reserve," which is not in inventory has been computed at an assumed rate of 25 percent of the high end of "aboard-submarine" inventory.

4/ The SS-N-4 is a 350 n.m. surface-launched ballistic missile.

5/ The SS-N-5 is a 700 n.m. submerged-launched ballistic missile.

6/ We have arbitrarily assigned this missile only to the new class SSBN. The estimate assumes eight missiles per submarine.

NIEP-67
TABLE IC 5 (Continued)

SOVIET SUBMARINE BALLISTIC MISSILES
TOTAL LAUNCHERS AND OPERATIONAL MISSILE INVENTORY BY SYSTEM AT MID-YEAR 1/ (Continued)
AS = Launchers and Missiles Aboard Submarines 2/
R = Operational Reserve (Maintenance Spares) 3/

SYSTEM	1970 AS	1970 R	1971 AS	1971 R	1972 AS	1972 R	1973 AS	1973 R	1974 AS	1974 R	1975 AS	1975 R	1976 AS	1976 R
SS-N-4 4/														
Aboard SSBN	0		0		0		0		0		0		0	
Aboard SSB	95-98		95-92		93-84		89-71		85-52		83-50		81-48	
Total	95-98	24	95-92	24	93-84	23	89-71	22	85-52	22	83-50	21	81-48	20
SS-N-5 5/														
Aboard SSBN	24-30		24-30		24-30		24-30		24-30		24-30		24-30	
Aboard SSB	2-9		2-14		2-20		2-29		2-44		2-44		2-44	
Total	26-39	10	26-44	11	26-50	12	26-59	15	26-74	19	26-74	19	26-74	19
New 6/														
Aboard SSBN	40-64	16	64-96	24	88-128	32	112-160	40	136-200	50	168-240	60	200-280	70
Total Ballistic Missiles	161-201	50	185-232	59	207-262	67	227-290	77	247-326	91	277-364	100	307-402	109